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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
RE: APPEAL TO THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant : Steven E. Robbins

Art Unit : 3728

Serial No. : 08/873,876

Examiner : M. Patterson

Filed : June 12, 1997

Title : RESILIENT SOLE FOR USE IN ARTICLES OF FOOTWEAR TO ENHANCE
BALANCE AND STABILITY

Assistant Commissioner for Patents
Washington, D.C. 20231

REPLY BRIEF

Appellant presents this Brief in reply to the Examiner's Answer mailed June 23, 2000. This Brief is presented to respond to both new and old arguments made by the Examiner.

REJECTION UNDER 35 U.S.C. 112, FIRST PARAGRAPH

Notwithstanding the arguments presented in the Examiner's Answer, Appellant urges the reversal of the rejection of the specification under 37 C.F.R. 1.71 and 35 U.S.C. 112, first paragraph, for the following reasons, in addition to those stated previously in the Appeal Brief submitted May 19, 2000.

In the Examiner's Answer, the Examiner contends that "the specification does not provide basis for the range of 0.05 - 0.5." The Examiner writes, "(t)here is no basis as to how such a range is considered to be optimum. It appears that applicant has merely arbitrarily selected such a range without any basis for such." Appellant disagrees.

Appellant tested prior art soles and determined that prior art soles have resiliency indices above 0.6. Appellant discovered that soles made of a material with a resiliency index lower than 0.6 offers enhanced stability compared with the prior art soles of higher resiliency index. See specification at page 4, lines 6-11. Appellant therefore found that optimization of stability is achieved using soles having a resiliency index of less than 0.6, and appropriately claimed a sole having resiliency indices that fall within that optimum range, specifically a "sole having a resiliency index in the range from about .05 to about .5." Appellant even described an example of a sole that is within the optimal range, namely a sole constructed from PVC foam not previously used in the construction of soles for footwear.

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In the Examiner's Answer, the Examiner states that the "fact that applicant argues that cure time, temperature, pressure, and aeration of a foam affects the resiliency index and that no material has an inherent resiliency index also further reinforces the Examiners basis for lack of disclosure and lack of clarity as to what materials are intended to be encompassed by applicants claims and specification." Appellant again disagrees.

Appellant's identification of factors that affect the resiliency index does not demonstrate a lack of disclosure and clarity, as asserted by the Examiner. Rather, the identification of these factors provides a roadmap for practitioners to develop and determine what materials fall within the claimed range. Therefore, the assertion that the identification of these factors "further reinforces the Examiners basis for a lack of disclosure and lack of clarity" is unfounded.

Applicant has provided an embodiment that provides broad enablement for footwear having soles in this mechanical art. See In re Fisher, 166 USPQ 18, 23-24 (CCPA 1970)(explaining that for "cases involving predictable factors, such as mechanical or electrical elements, a single embodiment provides a broad enablement in the sense that, once imagined, other embodiments can be made without difficulty and their performance characteristics predicted by resort to known scientific laws"). In fact, by following the procedure detailed in this broad embodiment at pages 9-14 and Figs. 3-5 of the present application, it is possible to make other embodiments of footwear having soles with resiliency indices that differ from the broad embodiment, but that are included in the claimed range of resiliency indices.

Moreover, Appellant maintains that the specification provides a basis for the claimed features and thus urges withdrawal of the rejection under 37 CFR 1.17 and 35 USC 112, first paragraph.

REJECTION UNDER 35 U.S.C. 112, SECOND PARAGRAPH

Appellant urges the reversal of the rejection of the claims under 35 U.S.C. 112, second paragraph, for the following reasons, in addition to those stated previously in the Appeal Brief submitted May 19, 2000.

The Examiner's Answer indicates that "the claims have been rejected because it is not clear what materials have [the claimed] property," namely a resiliency index ranging from about

.05 to about .5. The Answer also notes that "it is not clear what materials applicant intends to encompass with such language." Appellant disagrees with each assertion.

The second paragraph of Section 112 requires a claim to particularly point out and distinctly define the metes and bounds of the subject matter that will be protected by the patent grant. This requirement ensures that the claims are "precise, clear, correct, and unambiguous." Therefore, the satisfaction of this requirement is to be evaluated in the context of whether a claim is definite – i.e., "whether the scope of the claim is clear to a hypothetical person possessing the ordinary level of skill in the pertinent art." See MPEP 2171.

The pending claims satisfy this burden by setting forth the metes and bounds of the claimed range without ambiguity, enabling one of ordinary skill to clearly understand the scope of the subject matter included within the claim as required by the second paragraph of Section 112. Because the claims require the material to have "a resiliency index in the range from about .05 to about .5," it is easy to determine whether footwear falls within the claims. Hence, the numeric range itself does not introduce any ambiguity, nor does it complicate or confuse the metes and bounds of the claim. See MPEP 2173.05(c) ("Generally, the recitation of specific numerical ranges in a claim does not raise an issue of whether a claim is definite.").

Indeed, through the comments offered in the Examiner's Answer, the Examiner appears to recognize the sufficiency of the claim for purposes of Section 112, second paragraph. The Examiner states that "there is no way to know what materials would fall into such a range without specifically performing applicants test at a particular time, temperature, pressure, etc." (emphasis added). Implicit in this statement is an admission that, based on the claim language itself, one of ordinary skill is able to determine whether materials fall into the claimed range.

For purposes of Section 112, second paragraph, it is not relevant whether one of ordinary skill must perform a particular testing procedure to determine whether a sole has a resiliency index that is within the claimed range. What is relevant is that a particular testing procedure exists to enable one of ordinary skill to determine whether a material has a resiliency index that is within the claimed range.

As recognized by the Examiner in the portion of the Examiner's Answer cited above, such a testing procedure exists, e.g., as described in the specification. Using this testing procedure, one of ordinary skill is able to test that material to determine, without ambiguity,

whether its resiliency is in the claimed resiliency range. If the tested material exhibits a resiliency index in the range of about .05 to about .5, then that tested material necessarily falls within the scope of the claim. An example of a material satisfying this criteria is even identified where the specification describes an expanded polymer that is available from Pandel Inc. of Atlanta, Georgia, under the designation "TENNIS EMBEDDED FLOOR MATTING," which has a Shore A5 hardness. It is difficult to imagine a more definite indication of the metes and bounds of the claim.

The Examiner's Answer also states that "the fact that applicant has tested numerous more PVC foams which do not have resiliency indexes within the claimed range does not negate the fact that there are PVC foams which do have resiliency indexes within the claimed range." The Examiner is correct, and moreover, Appellant is not trying to "negate the fact that there are PVC foams which do have resiliency indexes within the claimed range." Indeed, Appellant again directs the Board to the portion of the specification describing PVC foam marketed for use as underpadding for carpeted tennis courts under the designation "TENNIS EMBEDDED FLOOR MATTING" by Pandel, Inc. of Atlanta, Georgia, which has a resiliency index within the claimed range. Through the testing referenced above, Appellant merely points out that PVC foam used in conventional footwear does not have a resiliency index within the claimed range. Appellant does not negate any possibilities for the development of complying PVC forms to be used in footwear. Hence, this portion of the Examiner's Answer is moot.

REJECTIONS UNDER 35 U.S.C. 102(b) and 103(a)

Appellant urges the reversal of the rejection of claims 1-18 as being anticipated by or obvious over Pendergast for the following reasons, in addition to those stated previously in the Appeal Brief submitted May 19, 2000. In the Examiner's Answer, the Examiner states that:

Pendergast clearly discloses the use of PVC foam with a shore A hardness of 5A and furthermore teaches selecting such foam based on desired hardness of firmness based on stretch, contraction, and dwell desired. The fact that there may be many PVC foams which result in a resiliency index which does not fall into the claimed range does not negate the fact that such a disclosure clearly and inherently encompasses PVC foams which would fall into the claimed resiliency index range. Especially since

applicant has stated that a PVC foam with a shore A hardness of A5 does fall in the range.

Although this statement references portions of Pendergast that relate to hardness, not resiliency, the identified portions of Pendergast are relied upon to assert that Pendergast "clearly and inherently encompasses PVC foams which would fall into the claimed resiliency index range." There exists no basis for this assertion. In fact, Appellant maintains that any inference regarding resiliency that is based on Pendergast is misplaced.

A material's hardness is not necessarily indicative of that material's resiliency. Thus, he resiliency of a material is not inherent from the hardness of that material. Indeed, these two different mechanical properties each may be used independently to define the material's mechanical properties, hardness describing a material's resistance to pressure and resiliency describing a material's ability to regain its original shape or position after being deformed.

Yet, in the final Office Action and in the Examiner's Answer, the Examiner relies on portions of the Pendergast relating to hardness to infer teachings relating to resiliency. Specifically, the Examiner argues that, based on its teachings regarding hardness, Pendergast inherently includes teachings regarding resiliency. These arguments are untenable, as resiliency cannot necessarily be inferred from hardness. Thus, the application of Pendergast under Section 102 is improper.

The Examiner's Answer also states that "applicant has stated that a PVC foam with a shore A hardness of A5 does fall in the range." This is an improper mischaracterization of Appellant's statements. Appellant has never stated that PVC foams having a shore A hardness of A5 fall in the claimed resiliency range. First, Appellant pointed out in the declaration dated April 28, 1998 that "PVC foam, which is marketed for use as underpadding for carpeted tennis courts, had a resiliency index of 0.156." Second, Appellant pointed out in the reply dated May 8, 1998 that "materials, which are marketed for use as carpet underpadding for tennis courts (the PVC foam) ... are not commonly used to form the sole of a shoe." Third, Appellant pointed out in the appeal brief filed May 19, 2000 that "testing clearly and unequivocally established that all but a single one of the tested PVC foams had a resiliency index greater than 0.6. The one PVC foam that had a resiliency index below 0.6 had a resiliency index of 0.156. This PVC was

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marketed for use as underpadding for carpeted tennis courts, and not for use in common footwear." None of these statements indicate that a PVC foam with a shore A hardness of A5 falls within the claimed range, as asserted in the Examiner's Answer.

In view of the foregoing, Appellant requests reversal of the appealed rejection.

If there are any charges not covered, or any credits, please apply them to Deposit Account No. 06-1050, Reference No. 06119-011002.

Respectfully submitted,

Date: August 23, 2000


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